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Conflict of Interest & Bias in Health Advisory Committees: A case study of the WHO's Electro Magnetic Frequency (EMF) Task Group

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Introduction

The potential problem of conflicts-of-interest biasing outcomes in papers submitted to bio-medical journals, including papers published in journals by expert advisory bodies, was an issue addressed by the International Committee of Medical Journal Editors in November 2003. To quote from their *"Üniform Requirements":*

"Conflict of interest exists when an author (or the author's institution), reviewer, or editor has financial or personal relationships that inappropriately influence (bias) his or her actions. . . The potential for conflict of interest can exist whether or not an individual believes that the relationship affects his or her scientific judgement. Financial relationships . . . are the most easily identifiable conflicts of interest and the most likely to undermine the credibility of the journal, the authors, and of science itself."[1]

This paper briefly examines this problem , using recent actions taken by the World Health Organisation's (WHO) International EMF Project and the International Commission on Non-Ionizing Radiation Protection (ICNIRP).

In both organisations the case is presented that maintaining independence from industry vested interests is essential for maintaining scientific objectivity and credibility in giving expert advice on public health matters.

At the May 2001 Australian Senate Inquiry into Electromagnetic Radiation,Michael Repacholi, head of the WHO's International EMF Project, informed the Senate Committee that the WHO had a firm policy against industry involvement in its processes. To quote:

"The World Health Organization does not allow industry to participate in either standard setting or in health risk assessment. The WHO takes the view that there cannot be industry representation on standard setting working groups. There cannot be someone on the working group who is having an influence on health effects for an industry when they derive benefit from that industry."[2]

ICNIRP clearly states on its website that all commission members are independent experts in their respective scientific disciplines and do not represent either their countries or institutes and specifically they cannot be employed by industry. In order to maintain this independence from industry or other vested interests it is stated:

"Members are reminded frequently of the need to declare any interests detrimental to ICNIRP's status as an independent advisory body. . . ICNIRP also does not accept funding from industry."[3]

These requirements were established so that ICNIRP's credibility of its advice and guidelines cannot be said to be influenced or biased by industry vested interests. Dr Ken Joyner, from Motorola, stressed the independence of ICNIRP from industry at the Australian Senate Inquiry into Electromagnetic Radiation in May 2001. Joyner stated:

"If you want to look at one standards body that has specifically excluded any industry representatives, there is the ICNIRP body. You cannot be a member of the ICNIRP if you are part of industry. They exclude you from that process."[4]

The ICNIRP website also explains that the scientific reviews carried out by ICNIRP members are combined with risk assessments done by WHO International EMF Project working groups with the resultant being the publication of ICNIRP's EMF exposure guidelines. Therefore the claim that ICNIRP's scientific advice is value-free from industry influence must also include the same requirement for any WHO risk assessment task group. That was what Repacholi stated to the Australian Senate Committee in May 2001 (as previously quoted).

"There cannot be someone on the working group who is having an influence on health effects for an industry when they derive benefit from that industry." [6]

The close working relationship between ICNIRP and the WHO's EMF Task Group evaluating power frequency research is seen in the makeup of the membership of the Task Group. Out of the 20 members from 17 countries [5], we have Paolo Vecchia, the current ICNIRP Chairman, Anders Ahlbon, Larry Anderson, Rudiger Matthes as members of ICNIRP's main commission, with Ahlbon also on ICNIRP's Standing Committee on Epidemiology. Other ICNIRP Standing Committee members include Christoffer Johansen, Jukka Juutilainen, Alasdair McKinlay and Zhengping Xu. Eric van Rongen is a consulting expert for ICNIRP. In addition, Michael Repacholi, head of the WHO's

International EMF Project, is also Chairman Emeritis of ICNIRP.[6]

Including Repacholi, half of the official members of the WHO task group are also members of ICNIRP, so it is obvious that there are no secrets between ICNIRP and the Task Group.

Industry influence endemic in the decision making process

As reported by the New York based publication, *Microwave News*, on October 1, 2005, the 20 member WHO Task Group writing a new Environmental Health Criteria (EHC) document on power frequency EMFs included, at the request of Repacholi, repre-sentatives from the electrical utilities, or organisations with close ties with the industry. Their task was to both assist in writing the initial draft and review the completed draft.[7] This is in clear conflict with what Repacholi stated in his testimony in the May 2001 Australian Senate Inquiry hearings. To quote again: *"There cannot be someone on the working group who is having an influence on health effects for an industry when they derive benefit from that industry."*

One of the central authors of the draft, and member of the EHC Task Group, Leeka Kheifets, was a former WHO assistant to Michael Repacholi. She disclosed in Sept. 2005 in a letter (declaring any potential conflicts of interest) to the British Medical Journal that she *"works with the Electric Power Research Institute... and consults with utilities."*[8] Other power industry representatives who assisted Kheifets in preparing the draft were Gabor Mezei, from the EPRI, Jack Sahl from Southern California Edison (USA), and Jack Swanson from the National Grid (UK). When Repacholi sent a draft of the EHC out for review in early July 2005, the reviewers included re-presentatives from the power industry bodies: The Federation of Electric Power Companies of Japan, Pacificorp (USA), Hydro-Quebec (Canada), the Utility Health Sciences Group (USA) and Exponent Inc (USA).[9] The question of liability must have also been on the agenda, as Exponent has described its business activities as follows:

"Exponent serves clients in automotive, aviation, chemical, construction, energy, government, health, insurance, manufacturing, technology and other sectors of the economy. Many of our engagements are initiated by lawyers or insurance companies, whose clients anticipate, or are engaged in, litigation over an alleged failure of their products, equipment or services." [10]

In addition to WHO staff, the only other observers that Repacholi invited to the WHO Task Group meeting in Geneva on 3 October to recommend exposure limits, were eight representatives from the power industry. Members of the press were barred from attending.[11] In addition the meeting was not publicised on either the WHO web site meetings list or the Bioelectromagnetics Society Newsletter's conference calendar and very few members of the EMF scientific community, including important EMF epidemiologists, were even aware of the meeting.[12] Only industry representatives received invitations. Why were the epidemiologists who were directly involved in the research that the WHO's risk assessment task group would evaluate, not also invited as observers and reviewers?

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The *Microwave News* article points out that a number of independent researchers were involved in the preparation and review of the draft, but it was "highly unusual, if not unprecedented, for a WHO health document to be reviewed by so many with such strong ties to the affected industry,"[13]

One example of an industry reviewer's viewpoint, seeking to downplay potential health hazards, is seen in the comments from Michel Plante, representing Hydro-Quebec:

"The whole section on cancer seems more like a desperate attempt to maintain some positive statistical association from epidemiological studies alive than a factual and honest presentation of arguments both for and against carcinogenicity."[14]

Plante's role as a protector of his employer's interests in denying a cancer link with EMFs was amply demonstrated in his involvement, as a Hydro-Quebec representative, in suppressing potentially damaging cancer data in a 1994 Hydro-Quebec funded epi-demiological study by Dr Gilles Theriault et al. from McGill University. The initial analysis of the data collected from three electric utilities found that workers who had the greatest exposures to magnetic fields had twelve times the expected rate of astrocytomas, a type of brain tumour, based on a small number of cases.[15]

In a later re-analysis of the data[16], this time looking at high frequency transients (HFT), the McGill University team found up to a 10-fold increased risk of developing lung cancer amongst highly exposed utility workers, with a "very clear" exposure-response relationship.[17]

When Gilles Theriault's McGill team wanted to further analyse the HFT data for other associations, Hydro-Quebec, which funded the $3 million study, and therefore owned the collected data, refused further access to the data. Plante said at the time that *"we have a contract problem that has to be resolved and there will be no new mandate until it is solved"*. Plante argued that by Theriault publishing the findings on HFT he had violated the contract with the utilities. Many senior EMF researchers and epidemiologists saw the HFT data as having important implications and needing further analysis by other researchers.[18] As of October 2005 the Hydro-Quebec HFT data has continued to be suppressed from any further analysis by the scientific community – and Plante, as Hydro-Quebec's man at the centre of that suppression, has now been asked by Repacholi to review the WHO's Environmental Health Criteria risk assessment.

It is not known if Plante was asked at the meetings about the "positive statistical association" seen in the Hydro-Quebec HFT data, but he could have replied that it is not important because it has not yet been replicated!

The Utility Health Sciences Group, another power industry group that Repacholi asked to review the EHC draft document, plainly indicated that they considered increased costs to industry should take precedence over health considerations when they proposed a change in the chapter on protective measures that stated:

"It should also be pointed out that redirecting facilities or redesigning electrical systems may be so expensive as to be inconsistent with the low-cost and no-cost steps typically viewed as prudent avoidance." [19]

The UHSG also proposed a statement be included in the summary:

"It would be useful for the summary to include a clear statement that the scientific research does not establish ELF EMF as a cause or contributing factor in any disease or adverse health effect, including cancer." [20]

The Myth of not accepting funding from industry

It is stated on the ICNIRP web site that in order to protect its status as an independent advisory body, " *ICNIRP also does not accept funding from industry*".[21] When it comes to the WHO's International EMF Project, however, no such restrictions apply. As Repacholi has stated, the:

"[EMF]*Project can receive funding from any source through Royal Adelaide Hospital; an agency established through WHO Legal Department agreement to collect funds for the project."*[22]

Questions of a conflict-of-interest and even money laundering could be raised at this point when it was revealed by *Microwave News* that Repacholi, as head of the EMF Project, receives $150,000 annually from the cellphone industry.[23] However, Repacholi could rightfully still claim that he does not receive any direct funding from industry sources since it is funneled through the Royal Adelaide Hospital. This arrangement may be in violation of a current WHO rule against employees and consultants accepting any *"gift or remuneration"* from external sources *"incompatible"* with their duties to WHO. [24]

A Claytons oversight committee?

According to a fact sheet,*New Electromagnetic Fields Exposure Guidelines,* published by the European Commission in December 2005, an "International Advisory Committee" (IAC) has been set up to provide oversight to the WHO's International EMF Project. This committee consists of representatives of international organisations, independent scientific institutions and national governments who are supporting the Project.[25] In this case IAC oversight should essentially operate much the same as a judicial oversight committee where a judicial branch of the government watches or monitors what is going on or happening in a case or matter. In the judicial arena it is a form of checks and balances that operates to keep law officers from abusing their powers.[26] In the case of the WHO's EMF Project IAC oversight should operate to prevent WHO officials from abusing their powers - and this should include preventing the possibility of bias through conflict-of-interest. It would also be important for the IAC to maintain an arms-length distance from the project activities that it is supposed to monitor.

The question then needs to be asked of the IAC: Why have they failed to intervene in the case of blatant industry influence on the WHO's EMF Task Group?

Forgotten Lessons: Big Tobacco and Protecting the Integrity of WHO Decision Making

In July 2000 the WHO Committee of Experts on Tobacco Industry Documents released a 260-page report documenting the tactics used by the tobacco industry's strategies to undermine the work of the WHO.[27] At the same time the WHO issued a 15-page response document listing a detailed response to ensure that the WHO was never undermined again. Just a few of the 58 are worth quoting:

6. *WHO should urge other UN organisations to investigate possible tobacco company influences on their decisions and programs, and to report their findings publically.*
7. *WHO should advocate implementation and consistent enforcement of effective conflict of interest and ethics policies throughout UN agencies.*
8. *WHO should urge Member States to conduct their own investigations of possible tobacco company influence on national decisions and policies, and to publish reports on their findings.*
11. *Appoint an ombudsman or other independent offices, outside the standard lines of reporting authority, with autonomy and clear authority for enforcing ethical rules.*
12. *Disseminate conflict of interest rules more broadly.*
14. *Introduce a formal process for vetting prospective employees, consultants, advisers, and committee members, to identify conflicts of interest..*
19. *Prohibit employees, consultants, advisers, and committee members from holding any substantial financial affiliation with the tobacco industry, including any employee or consulting relationship. . .*

Such a blatant disregard for the fundamental principles of credible science as well as WHO's mission on protecting world health speaks of a desperation to bury independent science at all costs, even if that cost is the integrity of WHO.

20. *Disqualify any professional services from performing work on behalf of WHO if the firm also provides a tobacco company with services likely to be adverse to the interest of public health. . .*
21. *Prohibit employees, consultants, advisers and committee members from accepting any item of value from a Tobacco company or its affiliates. . .*
35. *WHO and IARC should take steps to educate their scientific investigators and collaborators about tobacco company efforts to undermine research and the need for special vigilance in protecting the integrity of tobacco-related research.*[28]"

Although the above sample of WHO recommendations were in response to Big Tobacco's attempts to undermine WHO integrity, its direct relevance to other large industrial interests cannot be ignored, be it the power industry or telecommunications.

Unfortunately it seems that in this case at least, WHO has forgotten the hard lessons learnt with its previous experiences with Big Tobacco. In the case of WHO's Task Group writing the new Environmental Health Criteria (EHC) for power frequency EMFs, a violation of the above recommendations urgently calls for an independent evaluation to protect both public health and WHO's integrity.

In Conclusion

It is acknowledged that in an ever increasingly globalized world the reliance on international organisations to set standards to protect public health is an irrefutable fact of modern life. It is also a fact that international organizations charged with this task need to be "eternally vigilant" to ensure that their organisations are not co-opted by vested interests groups – as exampled by Big Tobacco and WHO.

However when it comes to non-ionizing radiation issues (in this case for power frequency health risk assessment) the evidence is clear that Michael Repacholi has used his standing in both WHO and ICNIRP to stack the WHO's Environmental Health Criteria Task Group for power frequency exposures with representatives of the power industry in contravention of WHO policy. This can only be to the detriment of the group's ability to evaluate the scientific literature in an unbiased way. This action can only be construed as being aimed at ensuring that industry involvement in determining the WHO Environmental Health Criteria will bias ICNIRP's risk assessment for power frequency exposure limits for years to come. This will conveniently provide economic protection for the industry against the need to spend enormous sums of money on upgrading distribution systems as well as risks of litigation. Such a blatant disregard for the fundamental principles of credible science, as well as WHO's mission on protecting world health, speaks of a desperation to bury independent science at all costs, even if that cost is the integrity of WHO.

The Author is not affiliated with any company supplying telecommunications services.

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